SYSTEM AND METHOD FOR ORGANIZING FIELD UPGRADABLE WIRELESS COMMUNICATION DEVICE SOFTWARE

5   ## ABSTRACT OF THE INVENTION

A system and method are provided for organizing field upgradeable system software in a wireless communications device. The method comprises: forming system software code into a first plurality of symbol libraries, each library comprising symbols having related functionality; arranging the first plurality of symbol libraries into a second plurality of code sections so that symbol libraries start at the start of code sections; creating a second plurality of contiguously addressed memory blocks; identifying each memory block with a corresponding code section; storing code sections in the identified memory blocks, with the start of code sections at corresponding start addresses; maintaining a code section address table cross-referencing code section identifiers with corresponding start addresses; and, executing the wireless device system software.

Forming system software code into a first plurality of symbol libraries includes forming a symbol accessor code. Arranging the first plurality of symbol libraries into a second plurality of code sections includes arranging each symbol to be offset from its respective code section start address, and includes arranging the symbol accessor code in a first code section. Then, the method further comprises: maintaining a symbol offset address table cross-referencing symbol identifiers with corresponding offset addresses, and corresponding code section identifiers; and, storing the symbol accessor code address in a first location in memory.